Selected high-risk drugs

Drug	Potential harm	Comment
Insulin	Hypoglycemia	May often be appropriate; however, aggressive glycemic control may often yield greater harms than benefits in older adults.[1-3]
Sulfonylureas	Hypoglycemia	Older hospitalized patients at significant risk for hypogylcemia; avoid or use with great caution.[4]
Warfarin	Gastrointestinal, intracranial bleeding	Although a high-risk drug, benefits of warfarin therapy often outweigh harms; maintenance of prothrombin time/international normalized ratio (INR) in therapeutic range tightly linked to risk/benefit ratio.[5]
Digoxin	Impairment of cognition, heart block	May have a third-line role in management of systolic heart failure; suboptimal choice for rate control in atrial fibrillation.
Benzodiazepines	Falls	Associated with as much as a 60% increase in fall risk.[6]
Diphenhydramine, other first-generation antihistamines	Impaired cognition, urinary retention in men	Poor choice as sleep aid due to anticholinergic effects, next-day sedation, impact on performance including driving; close medication reconciliation important because patients may also obtain over-the-counter drugs.
Opioid analgesics	Constipation, sedation, confusion, cardiorespiratory depression, seizures	Codeine, meperidine, pentazocine, butorphanol, and nalbuphine are poor choices for analgesia. Fentanyl, morphine, or oxycodone are often appropriate with careful dose adjustment.
Antipsychotics	Death, pneumonia	Elevated risk of death when used to treat behavioral complications of dementia, although, in selected cases, benefits may exceed risks if consistent with patient goals of care.[7]
Chemotherapeutic agents	Myelosuppression (neutropenia, anemia), hepatotoxicity, cardiotoxicity	Comprehensive assessment is required for determining goals of treatment, particularly in light of comorbidities. When indicated, chemotherapy dose and schedule should be carefully individualized for organ function and anticipated toxicities of treatment. In general, greater treatment-related toxicity is accepted when the expected outcome of treatment is cure.
Selected antimicrobials		
Fluoroquinolones	Tendon inflammation and rupture, hypoglycemia, cardiac arrhythmias, *Clostridium difficile*-associated diarrhea, exacerbation of myasthenia gravis	Elevated risk of tendon rupture in combination with glucocorticoids.
Nitrofurantoin	In chronic use (rarely): Pulmonary fibrosis, neuropathy, hepatotoxicity	Avoid in older adults with creatinine clearance <30 mL/minute; does not reach therapeutic concentrations in urine and increased risk of toxicity.
Trimethoprim-sulfamethoxazole (co-trimoxazole)	Hyperkalemia, hypoglycemia (with sulfonylurea), severe dermatologic reaction (rare)	Drug interactions include warfarin (↑ INR), agents that increase serum potassium, and sulfonylureas (↑ hypoglycemic effect).

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